DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF UNDERGROUND STORAGE TANKS

PERMANENT CLOSURE REPORT

The UST system tank owner/operator shall complete and submit the **original** Permanent Closure Report (PCR) to the appropriate Division of Underground Storage Tanks (division) Environmental Field Office (EFO) within 60 days of collecting samples during the UST system closure assessment. T.C.A. §68-215-114(b) states that the tank owner/operator shall be liable to the state for costs of investigation, identification, containment and cleanup, including monitoring and maintenance.

Facility Name: _____

Date: _____ Facility I.D. Number: ____–____ ____ ____ ____ ____ ____ ____

THIS REPORT IS NOT COMPLETE UNLESS THE FOLLOWING DOCUMENTS ARE ATTACHED IN AN APPENDIX:

ATTACHED: (Check appropriate answer)

A. The original laboratory analysis sheets Yes_____ Not Applicable_____
(The laboratory analysis sheets shall include all items specified in the current UST Closure Assessment Guidelines)

B. Documentation for treatment of soil Yes_____ Not Applicable_____
(i.e. Application to Treat Petroleum Contaminated Soil)

C. Disposal Manifest(s) for soil Yes_____ Not Applicable_____
(i.e. Solid Waste Permits, Landfill Disposal Manifests, etc.)

D. Disposal Manifest(s) for sludge Yes_____ Not Applicable_____

E. Disposal Manifest(s) for liquid/ product Yes_____ Not Applicable_____

F. Disposal Manifest(s) for tanks and/or piping Yes_____ Not Applicable_____

G. Monitoring Well Information Yes_____ Not Applicable_____
(i.e. boring log, monitoring well construction diagram, etc.)

H. Water Use Survey Information Yes_____ Not Applicable_____

I. Updated Site Map Yes_____ Not Applicable_____

An updated, post-closure site map shall be attached showing buildings, roads, utilities, former or existing UST Systems, product lines and dispensers, areas of over-excavation, areas of encountered bedrock, borings, surface water within 200 feet of the site, and sample points. The map shall also include the location(s) of the soil stockpiles, their dimensions in feet, and the location of screening and sampling points within each stockpile (If due to size constraints, the location of stockpile screening and sampling locations cannot be accurately depicted, then a separate map depicting a layout of the stockpile shall be provided). A measurement shall be included from one corner of each tank excavation zone to a permanent structure (i.e. building, power pole, fire hydrant, etc.). Based on Question 14, identify the location of observed releases. The site map shall include a north arrow.

J. Copy of the Amended Notification Form. Yes_____ Not Applicable_____

Send the original Amended Notification Form to the UST Nashville Central Office.

PERMANENT CLOSURE REPORT

Facility Name: _____ Facility I.D. Number: ___–___ ___ ___ ___ ___ ___ ___

SECTION I GENERAL INFORMATION

1. Facility Name: _____

   Street Address (no P.O. Boxes): _____

   City: _____, TN Zip Code: _____

2. Were UST personnel at the appropriate Environmental Field Office (EFO) notified at least one working day prior to collecting soil samples for the UST system closure assessment? Yes _____ No _____

   If yes, person contacted: _____

   EFO contacted: _____ Date contacted: _____

   Reported by: _____

   If no, explain: _____

SECTION II UST CLOSURE PREPARATION

3. Were the tank atmosphere and work zone regularly tested with a combustible gas indicator in accordance with UST Regulations Appendix 6? Yes _____ No _____

   If no, explain: _____

4. Were the tank(s) purged prior to closure?

   Yes _____ No _____ Not Applicable _____

   If yes, identify the method used to purge the tank atmosphere:

   Carbon dioxide gas _____ Nitrogen _____ Eductor-type air movers _____

   Diffused air blower _____ Dry ice (1.5 lb/100 gal.) _____

   Other _____

   If no, explain: _____

5. Was product piping drained into the tank? Yes _____ No _____

   If no, explain: _____

6. Was product piping removed? Yes _____ No _____

   If no, explain: _____

7. Were all dispensers removed? Yes _____ No _____

   If no, explain: _____

PERMANENT CLOSURE REPORT

Facility Name: _____ Facility I.D. Number: ___–___ ___ ___ ___ ___ ___ ___

8. Were all liquids and/or sludge removed from the UST system(s)?
Yes _____ No _____ Not Encountered _____

If no, explain: _____

9. Method of liquid and/or sludge storage: _____

10. Method of liquid and/or sludge disposal: _____

SECTION III TANK REMOVAL

Only complete Section III if the tank and/or piping were removed during closure.

11. Was the tank(s) labeled in accordance with the UST Regulations Appendix 6? Yes _____ No _____

If no, explain: _____

12. Method of UST system storage/disposal:

Cut up for Disposal _____ Stored on Site _____ Stored off Site _____

Other _____

UST systems stored on site or off site are subject to Rules 1200-1-15-.07(2)(e), (f), (g), and Appendix 6.

13. Location of UST system storage/disposal: _____

_____ Not Applicable _____

14. If contamination above any initial screening level (ISL) was encountered, then based on visual inspection of the UST components during removal, which component(s) appears to have failed causing the contamination? (Check all that apply):

Piping (including joints) _____ Vent Lines (including joints) _____ Tanks _____

Spill/Overfill Equipment _____ Dispensers (including flex connectors) _____

Line Leak Detectors _____ Submersible Pump Heads _____ Unknown _____

None _____ Not Applicable _____

Provide specific details about what was observed:

_____

_____

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Facility Name: _____ Facility I.D. Number: ___–___ ___ ___ ___ ___ ___ ___

15. Based on the response to Question #14, what action or process appears to have caused the contamination? (Check all that apply):

    Spill(s) _____ Overfill(s) _____ Pipe and/or Joint Failure _____

    Human Error (i.e. accident, improper installation/repair, etc.) _____ Corrosion _____

    Mechanical Failure (Line leak detector/submersible pump head, dispenser equipment, etc.) _____

    Unknown _____ Not Applicable _____ Other (specify)_____

16. Amount of backfill material initially removed during UST system closure: _____cubic yards.

17. Total amount of material over-excavated after removal of the UST system: _____cubic yards.

18. If more than 100 cubic yards of material was over-excavated, were Division personnel in the appropriate EFO contacted? Yes _____ No _____ Not Applicable _____

    If yes, person contacted: _____

    EFO contacted: _____Date contacted: _____

    Reported by: _____

    If no, explain: _____

19. Check all that apply regarding the management of the excavated material:

    Thermal Treatment _____ Aeration _____ On Site _____ Off Site _____ Landfill _____

    Other _____ Not Applicable _____

20. After over-excavation, was free product present in the tank pit or line trench(es)?

    Yes _____ No _____

21. After tank removal, what material was used to backfill the excavation?

    Gravel/Crushed Rock _____ Clean Soil Fill _____ Excavated Soil Pile _____

    Other (Describe) _____ Not Applicable _____

    All excavations shall be backfilled with material containing petroleum contaminant levels below the Initial Screening Levels (ISLs).

22 If the excavated soil pile was used as backfill, was the material screened and sampled in accordance with TGD-005 and found to be below the ISLs prior to use as backfill?

    Yes _____ No _____ Not Applicable _____

    If no, explain: _____

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Facility Name: _____ Facility I.D. Number: ___–___ ___ ___ ___ ___ ___ ___

23. Was water encountered during excavation of the UST system?

Yes _____ No _____ Not Applicable _____

If yes, what was the amount of the water removed from the tankhold? _____ gallons
A maximum of only 500-gallons may be removed without prior division approval)

Did the water recharge within 24 hours? Yes _____ No _____

Was the recharge water sampled? Yes _____ No _____

If no, explain: _____

Method of water disposal: _____

24. If more than 500 gallons of water was removed, were Division personnel in the appropriate EFO contacted?

Yes _____ No _____ Not Applicable _____

If yes, person contacted: _____

EFO contacted: _____ Date contacted: _____

Reported by: _____

If no, explain: _____

25. Was bedrock encountered during UST system removal?

Yes _____ No _____

26. Were soil samples collected from the depths specified in the current UST Closure Assessment Guidelines?

Tank(s): Yes _____ No _____ Not Applicable _____

Product Line Trench(s): Yes _____ No _____ Not Applicable _____

Dispenser(s): Yes _____ No _____ Not Applicable _____

If no, explain: _____

27. Was all contaminated material above the applicable ISL excavated?

Yes _____ No _____ Not Applicable _____

If no, explain: _____

PERMANENT CLOSURE REPORT

Facility Name: _____ Facility I.D. Number: ___–___ ___ ___ ___ ___ ___ ___

SECTION IV CLOSURE-IN-PLACE

Only complete Section IV if the tank and/or piping were not removed during closure.

28. What inert solid material was used to fill the tank(s):

Sand _____ Sand/Soil _____ Concrete ____ Concrete/ Bentonite _____

Other (specify – liquid/foam materials are not acceptable) _____

29. Were soil samples collected from the boring depths specified in the current UST Closure Assessment Guidelines?

Tank(s): Yes _____ No _____ Not Applicable _____

Product Line Trench(s): Yes _____ No _____ Not Applicable _____

Dispenser(s): Yes _____ No _____ Not Applicable _____

If no, explain: _____

30. Was water encountered in the soil boring(s) during closure-in-place?

Yes _____ No _____

31. Was bedrock encountered during UST system closure-in-place?

Yes _____ No _____

SECTION V SURFACE WATER INFORMATION

32. Is surface water located within 200 feet of the site?

Yes _____ No _____

If yes, was the surface water visibly impacted by a petroleum product?

Yes _____ No _____

SECTION VI SAMPLING AND REPORTING

33. Were all samples placed directly into the appropriate containers immediately after collection?

Yes _____ No _____ If no, explain: _____

34. Were all samples immediately placed on ice after collection and maintained at 4°C until delivered to a laboratory?

Yes _____ No _____ If no, explain: _____

35. Was the contaminant concentration for any soil sample collected after removal, closure-in-place, or over-excavation above the ISL for any Chemical of Concern (COC) in Table 1 of the PCR?

    Yes _____ No _____

36. Was the contaminant concentration for any tankhold recharge water sample above the ISL for any COC listed in Table 2 of the PCR?

    Yes _____ No _____ Not Applicable _____

37. In accordance with Rule 1200-1-15-.06, was laboratory confirmation of petroleum contamination above the applicable ISL or discovery of free product reported to the division within 72 hours?

    Yes _____ No _____ Not Applicable _____

    If yes, person contacted: _____

    EFO contacted: _____ Date contacted: _____

    Reported by: _____

    If no, explain: _____

SECTION VII MONITORING WELL INSTALLATION, ANALYTICAL RESULTS AND WATER USE SURVEY INFORMATION

Only complete Section VII if a monitoring well was installed during UST closure.

38. In accordance with the current UST Closure Assessment Guidelines, was a monitoring well installed for any of the following situations? (Check all that apply)(Include a boring log/monitoring well diagram in Appendix G)

    A. Following over-excavation, free product was present. Yes_____

    B. Soil contamination exceeded the ISL for one or more COC and could not be over-excavated or was in contact with bedrock. Yes_____

    C. Bedrock was encountered before completing the sampling requirements in the current UST Closure Assessment Guidelines. Yes_____

    D. An analytical result from the recharge water sample collected from the tank excavation exceeded the drinking water ISL for one or more COC. Yes_____

    E. Water was encountered in one or more tankhold soil boring before completing the sampling requirements in the current UST Closure Assessment Guidelines. Yes_____

    F. Surface water located on or near the petroleum site was visibly impacted by petroleum product. Yes_____

39. Did the contaminant concentration in groundwater from the monitoring well sample exceed the drinking water ISL for any COC listed in Table 2 of the PCR? Yes_____ No_____

40. If the answer to #39 was yes, was a Water Use Survey performed in accordance with the current Environmental Assessment Guidelines?

    Yes_____ No_____

41. If the answer to #40 was yes, was a drinking water supply or wellhead protection area discovered within a one-half (0.5) mile radius of the site? (Include Water Use Survey information in Appendix H)

    Yes_____ No_____

42. If a Water Use Survey was performed and no drinking water supplies or wellhead protection areas were discovered within a one-half mile radius of the site, did the contaminant concentration in groundwater from the monitoring well sample exceed the non-drinking water ISL for any COC listed in Table 2 of the PCR?

    Yes_____ No_____

Facility Name: ________________________________ **Facility I.D. Number: ___–___ ___ ___ ___ ___ ___**

TABLE 1 – INITIAL SCREENING LEVELS (ISLs) AND ANALYTICAL RESULTS

SOIL*

All field screening and laboratory analytical results shall be reported in parts per million

Chemical of Concern	Soil Residential	Soil Commercial	Sample/Boring # (Tank, line, dispenser)	Sample Date	Sample Depth	Field Screening Results	Laboratory Analytical Results
ORGANICS	(mg/kg)	(mg/kg)			(feet)		
Benzene	0.0729	3.8					
Toluene	6.78	62.2					
Ethylbenzene	143	1310					
Xylenes (Total)	9.60	88.0					
MtBE	39.6	364					
Naphthalene	135	403					
EPH	500	500					
Benzene	0.0729	3.8					
Toluene	6.78	62.2					
Ethylbenzene	143	1310					
Xylenes (Total)	9.60	88.0					
MtBE	39.6	364					
Naphthalene	135	403					
EPH	500	500					
Benzene	0.0729	3.8					
Toluene	6.78	62.2					
Ethylbenzene	143	1310					
Xylenes (Total)	9.60	88.0					
MtBE	39.6	364					
Naphthalene	135	403					
EPH	500	500					
Benzene	0.0729	3.8					
Toluene	6.78	62.2					
Ethylbenzene	143	1310					
Xylenes (Total)	9.60	88.0					
MtBE	39.6	364					
Naphthalene	135	403					
EPH	500	500					

***Attach additional sheets as necessary**

PERMANENT CLOSURE REPORT

Facility Name: _____ Facility I.D. Number: ___–___ ___ ___ ___ ___ ___ ___

TABLE 2 – INITIAL SCREENING LEVELS (ISLs) AND ANALYTICAL RESULTS

GROUND WATER*

All laboratory analytical results shall be reported in parts per million

Chemical of Concern	Drinking Water	Non-Drinking Water	Sample/Monitoring Well #	Sample Date	Laboratory Analytical Results
ORGANICS	(mg/l)	(mg/l)			
EPH	NA	NA			
Benzene	**0.005**	**0.072**			
Toluene	**1.0**	**4.31**			
Ethylbenzene	**0.700**	**10.3**			
Xylenes (Total)	**10.0**	**3.57**			
MtBE	**0.020**	**175**			
Acenaphthene	**0.939**	NA			
Acenaphthylene	**0.939**	NA			
Anthracene	**0.0434**	NA			
Benzo(a)anthracene	**0.00117**	NA			
Benzo(a)pyrene	**0.0002**	NA			
Benzo(b)fluoranthene	**0.00117**	NA			
Benzo(g,h,i)perylene	**0.0007**	NA			
Benzo(k)fluoranthene	**0.0008**	NA			
Chrysene	**0.0016**	NA			
Dibenzo(a,h)anthracene	**0.000117**	NA			
EDB	**0.00005**	NA			
EDC	**0.005**	NA			
Fluorene	**0.626**	NA			
Fluoranthene	**0.206**	NA			
Indeno(1,2,3-c,d)pyrene	**0.00117**	NA			
Naphthalene	**0.020**	**9.81**			
Phenanthrene	**0.469**	NA			
Pyrene	**0.135**	NA			
METALS					
Cadmium	**0.005**	NA			
Chromium	**0.100**	NA			
Lead	**0.015**	NA			
Silver	**0.100**	NA			
Zinc	**5.0**	NA			

***Complete one table per sampling point**

NA – Not Applicable

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Facility Name: _____ Facility I.D. Number: ___–___ ___ ___ ___ ___ ___ ___

TABLE 3 – EXCAVATED SOIL/STOCKPILED SOIL ANALYTICAL RESULTS

All field screening and laboratory analytical results shall be reported in parts per million

Sample Number	Sample Date	Sample Depth (feet)	Field Screening	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MtBE	Naphthalene	EPH

PERMANENT CLOSURE REPORT

Facility Name: _____ Facility I.D. Number: ___–___ ___ ___ ___ ___ ___ ___

The following signature page shall be signed by the tank owner/operator. If more than 100 cubic yards of material was overexcavated, contaminated ground water was encountered, and/ or a monitoring well was installed, then the following signature page shall also be signed by a registered professional geologist under the Tennessee Geologist Act (T.C.A. §62-36-101 et seq.), registered professional engineer under the Tennessee Architects, Engineers, and Landscape Architects, and Interior Designers Law and Rules (T.C.A. §62-2-101 et seq.), or an approved Corrective Action Contractor in accordance with Rule 1200-1-15.-09(15).

I certify under penalty of law, including but not limited to penalties for perjury, that the information contained in this form and on any attachments are true, accurate and complete to the best of my knowledge, information and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for intentional violations.

Tank owner/operator (Print name)	Signature	Date
Title (Print)		
PE, PG, or CAC (Print name)	Signature	Date
TN Registration #	CAC Company (Print)	

Note: Each of the above signatures shall be notarized separately with the following statement:

STATE OF_____ COUNTY OF_____

Sworn to and subscribed before me by_____

on this date_____. My commission expires _____.

Notary Public (Print Name)	Signature	Date

Stamp/Seal